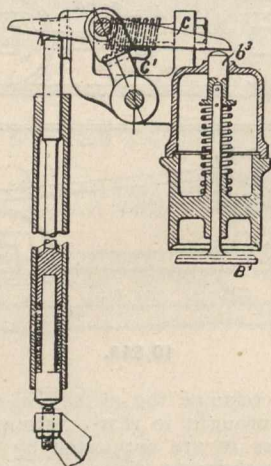


**Variable Lift-Valves.—The Wolseley Tool and Motor-Car Company, Limited, and R. R. Brown, Birmingham, and L. Silverman, Crayford.—16,436; 1905.**—This invention relates to mechanism for controlling the variable lift of mechanically-actuated admission valves of internal-combustion engines, especially those used on motor-cars or boats. In valve-operating mechanism, according to this invention, a lever *c*, which transmits motion by the push-rod *b3* to the stem of the inlet or admission valve *B1*, is pivoted in a rocking-arm *a1*, which in turn is pivoted to the valve-casing, the arrangement being such that by moving the rocking-arm *a1* about its fulcrum the fulcrum of the motion-transmitting lever *c* will be caused to move in an arc about the fulcrum of the rocking-arm, the said arc being approximately at right angles to the axis of the valve stem, whereby the



16,436.

position of the ends of the motion-transmitting lever relatively to the push-rod and the stem of the valve will be varied, not only as regards the actual points of contact of the lever with respect to the push-rod and the stem of the valve, but also as regards the distance of the lever itself from the said points of contact, in accordance with the extent of movement of the rocking-arm. Any appropriate means may be employed for enabling the driver of the vehicle to actuate the aforesaid rocking-arm; for instance, the free end of the latter may be formed with a segmental rack gearing with a worm carried by an axle suitably arranged to be turned by the driver. Obviously, if the engine comprises more than one working cylinder, there would be a corresponding number of the aforesaid motion-transmitting levers which would all be actuated simultaneously from one or more of the aforesaid rocking-arms.



#### OBITUARY.

Freeman B. Talbot, ex-county engineer of Middlesex, died at his home in London, Ont., on Wednesday, October 24th, after an illness of only ten days.

D. J. Russell Duncan, civil engineer, of Keating & Duncan, engineers, died on November 12th, at his residence, Rowanwood Avenue, Rosedale, from an acute attack of diabetes. He was born in Scotland and had carried on business in London and his native land. He was an expert on matters appertaining to the construction of sewers.



#### INDUSTRIAL NOTES.

The following inquiries have been received at the Canadian Government office, 7 Victoria St., London, S.W., England:—A Staffordshire firm manufacturing chains for engineering and other purposes desires to get into touch with Canadian buyers.

From the City Trade Branch, 73 Basinghall St., London, E.C.—A Sheffield company, manufacturing cutlery of all descriptions, is open to appoint suitable Canadian resident agent.

Toronto:—

A compound duplex pumping engine is being placed in the Continental Life Building by the Smart-Turner Machine Company, of Hamilton.

The United Zinc Company, of Boston, will establish a factory here. They will locate on the south side of Adelaide Street, west of York, and will employ 20 men at first.

An organization meeting of the railway engineers was held at the King Edward Hotel on Nov. 9th; the meeting was well attended, and a constitution was adopted and a set of by-laws formulated.

The plant of the Standard Bolt and Screw Company of this city, has been purchased by the John Morrow Machine Screw Company, of Ingersoll. The plant was valued at about \$28,000, and will be used to supplement the purchaser's plant at Ingersoll.

The Foster-Cobalt Mining Company, has purchased from Allis-Chalmers-Bullock, Limited, of Montreal, through their Toronto office, a mining plant including an "Ingersoll" straight line air compressor, 7 "Ingersoll" rock drills of the latest model, 3 "Lidgerwood" hoisting engines, 2 boilers, 2 sinking pumps, ore buckets and other apparatus.

Commissioner of Industries, Thompson, has recommended that a breakwater be extended out into the Bay from a point about opposite the foot of Parliament Street, and that the stretch of water between this piling and the present one at the foot of Cherry Street be filled in. This will provide many additional acres of factory sites, and offer good shipping facilities.

The Dominion Radiator Company, of Toronto, will spend about \$200,000 on a new factory of double the present factory's capacity. The company will employ from 500 to 600 hands when the new factory is completed. A site has been secured on Dufferin street near the Canada Foundry, south of the C. P. R. tracks and some distance north of the present factory, which is for sale.

The Stromberg-Carlson Telephone Mfg. Co., of Rochester, N.Y., has moved its Toronto office from 18 Toronto Street to 60 Front Street West. Mr. Gibson, their Toronto representative reports continued demand for telephone material, and their new premises will permit greater facility for the display of a full line of samples. A large stock will also be kept on hand, so that customers will be able to have their orders filled more rapidly.

The Engineers' Club, decided on Thursday evening, November 8th, to sub-let their rooms at 96 King Street West, to the Toronto Branch of the Canadian Society of Civil Engineers, one meeting a month to be held by the members of the society. The members of the Engineers' Club, who are not members of the C.S.C.E. are to become associate members, and with this be afforded the privilege of attending the monthly meeting of the Toronto branch of the society.

The Cleveland Engineering Company have appointed a Canadian representative in the person of Albert E. Hawker, M.E., with offices at 86 Victoria Street. They are prepared to carry out work in connection with the surveying and laying out of railway lines; design and installation of water-works and sewer systems, steel or reinforced concrete bridges, and buildings. Lighting, heating, and power plants; ventilating and heating systems; hydraulic propositions; survey of mines; analytical work, etc. Mr. Hawker also represents a number of other companies, manufacturing special mechanical devices.

General:—

The Robb Engineering Co. has received an order from the Allis-Chalmers-Bullock Co., for three 125-horse-power engines for the C.P.R. Hotel, Vancouver, B.C.

Rhodes, Curry & Co., Amherst, have placed the order for the boilers for their new Rolling Mills with the Robb Engineering Co. There will be four boilers of 150-horse-power each.

The production of the various departments of the Dominion Iron and Steel Company during the month of October, was as follows:—Coke, 34,400 tons; pig-iron, 23,325 tons; ingots, 25,425 tons; blooms, 22,553 tons; rails, 12,621 tons; rods, 4,214 tons.